

From: Patricia.White@CH2M.com
To: Jeff.Keiser@CH2M.com; [Saric, James](#)
Cc: Frank.Dillon@CH2M.com
Subject: More on the Lower Duwamish Proposed Plan Region 10
Date: Thursday, February 28, 2013 9:10:34 AM

A few interesting things:

The PCB sediment PRG for the fish ingestion pathway is 2 ug/kg. This is based on “natural background” as defined in WA state regulations. Natural background is essentially for non-urban conditions. The modeling performed for the RI/FS indicates that natural background cannot be achieved in the lower Duwamish because of the urban quality of the incoming sediments. However, source control actions are ongoing and future background concentrations cannot be reliably predicted at this point in time, so Region 10 retained natural background as the PRG.

The fish tissue PRG for the fish ingestion pathway is based on a 10⁻⁶ risk level for the tribal RME scenario (a more conservative scenario than the one used for the Kzoo, which is based on 10⁻⁵ HESA), or non-urban background concentrations, whichever is higher. The non-urban background concentrations are highly uncertain, and additional data collection is planned during RD to improve these estimates. The benthic fish PRG is 12 ppb (background) and the pelagic fish PRG is 1.8 ppb (risk-based).

The proposed plan states that refined PRGs will be provided in a ROD amendment or ESD, so they are essentially kicking the can down the road with respect to predicting future background conditions.

I also did not see the time frame associated with the fish ingestion RAO – it is probably included in the alternatives analysis.

Patty

From: Keiser, Jeff/MKE
Sent: Thursday, February 28, 2013 9:23 AM
To: Saric.James@epamail.epa.gov
Cc: Dillon, Frank/DET; White, Patricia/BOS
Subject: Lower Duwamish Proposed Plan Region 10

Jim, I pulled out the RAOs from the Lower Duwamish (Region 10) Proposed Plan, doesn't look like they included a time frame in the RAOs, it may be mentioned later in the document I have not read it all. I also included Table 8 of the PP which includes the PRGs for comparison to Kalamazoo, see attached. This was just released for public comment so it should be the most recent example of what is being done. A link to the document is included below.

JK

RAO:

The proposed cleanup in this plan addresses the third component of this strategy, cleanup of the in-waterway portion of the Site. It is based on four goals, which EPA calls Remedial Action Objectives (RAOs):

RAO 1: Reduce to protective levels the human health risks associated with consumption of contaminated Lower Duwamish Waterway resident fish and shellfish by adults and children with the highest potential exposure.

RAO 2: Reduce to protective levels the human health risks from direct contact (skin contact and incidental ingestion) to contaminated sediments during netfishing, clamming, and beach play.

RAO 3: Reduce to protective levels the risks to benthic invertebrates from exposure to contaminated sediments.

RAO 4: Reduce to protective levels the risks to crabs, fish, birds, and mammals from exposure to contaminated sediment, surface water, and prey.

http://www.epa.gov/region10/pdf/sites/ldw/pp/ldw_pp_022513.pdf

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